

**SAFETY DATA SHEET**

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 03/29/2018

Version 1.3

**SECTION 1. Identification****Product identifier**

Product number	111678
Product name	TLC-Silica gel 60 GF <sub>254</sub> mean particle size 15 µm
CAS-No.	7631-86-9

**Relevant identified uses of the substance or mixture and uses advised against**

Identified uses	Reagent for analysis, Analytical and preparative chromatography
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**Details of the supplier of the safety data sheet**

Company	EMD Millipore Corporation   290 Concord Road, Billerica, MA 01821, United States of America   General Inquiries: +1-978-715-4321   Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5) MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.
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<b>Emergency telephone</b>	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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**SECTION 2. Hazards identification****GHS-Labeling**

*Precautionary Statements*  
P260 Do not breathe dust.

Not a dangerous substance according to GHS.

**Other hazards**

None known.

**SECTION 3. Composition/information on ingredients**

Chemical nature	Mesoporous silica gel.
Formula	SiO <sub>2</sub> O <sub>2</sub> Si (Hill)
Molar mass	60.08 g/mol

**Hazardous ingredients**

*Chemical name (Concentration)*  
CAS-No.  
*silica gel (>= 90 % - <= 100 % )*  
7631-86-9

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Exact percentages are being withheld as a trade secret.

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## SECTION 4. First aid measures

### Description of first-aid measures

#### *Inhalation*

After inhalation: fresh air.

#### *Skin contact*

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

#### *Eye contact*

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### *Ingestion*

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

### Most important symptoms and effects, both acute and delayed

We have no description of any toxic symptoms.

### Indication of any immediate medical attention and special treatment needed

No information available.

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## SECTION 5. Fire-fighting measures

### Extinguishing media

#### *Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

### Advice for firefighters

#### *Special protective equipment for fire-fighters*

In the event of fire, wear self-contained breathing apparatus.

#### *Further information*

Suppress (knock down) gases/vapors/mists with a water spray jet.

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## SECTION 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

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## Environmental precautions

No special precautionary measures necessary.

## Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly.  
Clean up affected area. Avoid generation of dusts.

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## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

### Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

Storage temperature: no restrictions.

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## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

#### Ingredients

Basis	Value	Threshold limits	Remarks
<i>silica gel 7631-86-9</i>			
NIOSH/GUIDE	Recommended exposure limit (REL):	6 mg/m <sup>3</sup>	
Z1A	Time Weighted Average (TWA):	6 mg/m <sup>3</sup>	
	Time Weighted Average (TWA):	20millions of particles per cubic foot of air	
	Time Weighted Average (TWA):	0.8 mg/m <sup>3</sup>	The exposure limit is calculated from the equation, 80/(%SiO <sub>2</sub> ), using a value of 100% SiO <sub>2</sub> . Lower values of % SiO <sub>2</sub> will give higher exposure limits.

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

### Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

### Eye/face protection

Safety glasses

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is

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necessary.

### *Respiratory protection*

required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer. These measures have to be properly documented.

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## SECTION 9. Physical and chemical properties

Physical state	solid
Color	white
Odor	odorless
Odor Threshold	Not applicable
pH	ca. 7 at 100 g/l 68 °F (20 °C) (slurry)
Melting point	3,110 °F (1,710 °C)
Boiling point/boiling range	4,046 °F (2,230 °C) at 1,013 hPa
Flash point	does not flash
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor pressure	Not applicable
Relative vapor density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	at 68 °F (20 °C) insoluble

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Partition coefficient: n-octanol/water	Not applicable
Autoignition temperature	does not ignite
Decomposition temperature	Not applicable
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Ignition temperature	not combustible
Bulk density	ca.200 - 800 kg/m <sup>3</sup>
Particle size	< 2 mm

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## SECTION 10. Stability and reactivity

### Reactivity

See below

### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### Possibility of hazardous reactions

Exothermic reaction with:

Hydrogen halides, halogen oxides, alkali hydroxides, sodium, xenon hexafluoride

### Conditions to avoid

no information available

### Incompatible materials

no information available

### Hazardous decomposition products

no information available

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## SECTION 11. Toxicological information

### Information on toxicological effects

*Likely route of exposure*

Inhalation, Eye contact, Skin contact, Ingestion

*Target Organs*

Eyes

Respiratory system

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*Acute dermal toxicity*

LD50 Rabbit: > 5,000 mg/kg  
(IUCLID)

*Skin irritation*

Rabbit  
Result: No irritation  
OECD Test Guideline 404

*Eye irritation*

Rabbit  
Result: No eye irritation  
OECD Test Guideline 405

*Sensitization*

Guinea pig  
Result: negative

(IUCLID)

*Genotoxicity in vitro*

Ames test  
Salmonella typhimurium  
Result: negative  
(IUCLID)

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative  
(IUCLID)

*Specific target organ systemic toxicity - single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

*Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

*Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

**Carcinogenicity**

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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## Further information

This is a generally physiologically inert substance that displays no hazardous properties after oral intake and skin contact and after inhalation of its dusts as long as the total dust limit for silicic acid is adhered to. Intensive contact with the eye may lead to irritation symptoms.

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 12. Ecological information

### Ecotoxicity

*Toxicity to daphnia and other aquatic invertebrates*

EC0 Daphnia magna (Water flea): >= 10,000 mg/l; 24 h

OECD Test Guideline 202

*Toxicity to algae*

IC50 Pseudokirchneriella subcapitata (green algae): 440 mg/l; 72 h (IUCLID)

NOEC Pseudokirchneriella subcapitata (green algae): 60 mg/l; 72 h (IUCLID)

### Persistence and degradability

No information available.

### Bioaccumulative potential

*Partition coefficient: n-octanol/water*

Not applicable

### Mobility in soil

No information available.

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## SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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## SECTION 14. Transport information

### Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

### Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

### Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

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## SECTION 15. Regulatory information

### United States of America

#### SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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## SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

## DEA List I

Not listed

## DEA List II

Not listed

## US State Regulations

### Massachusetts Right To Know

#### *Ingredients*

silica gel

### Pennsylvania Right To Know

#### *Ingredients*

silica gel

### New Jersey Right To Know

#### *Ingredients*

silica gel

### California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

## Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

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## SECTION 16. Other information

### Training advice

Provide adequate information, instruction and training for operators.

### Labeling

#### *Precautionary Statements*

Prevention

P260 Do not breathe dust.

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## Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

Revision Date 03/29/2018

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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